

COMMON MERCHANT PAYMENT TOOLKIT

Solving an Ever-Growing Need in Alternative Payments

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In the last several years the Internet community has seen a staggering number of new companies propose alternative payment systems that address specific underserved communities of online buyers and sellers. While several alternative payment providers—from InternetCash to e-gold—have come forth with unique consumer value propositions, all of these have nearly identical merchant value propositions.

This research report examines alternative payment systems from the perspective of the merchant and suggests that almost all payment industry stakeholders would be better served by a common merchant payment toolkit for alternative payment systems. The report argues that the existence and widespread deployment of such a toolkit would increase the market adoption of new, alternative payment instruments.

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The Market Context

In the early days of the commercial Internet, the challenge was to get existing payment mechanisms to work securely online. With the advent of SSL, the Internet became a logical front end to the existing credit card system—jump-starting what we now call eCommerce. The industry-wide mantra in those days was to keep it secure and make it easy, without changing the underlying payment system—to adapt the Internet to payment systems, not payment systems to the Internet.

With fewer than ten million users and only several dozen merchants online, this approach made sense. At the time, the Internet lacked a critical mass of online buyers and sellers; it would have been too distracting—not to mention too risky—to try to improve on existing payment systems in anticipation of opportunities the Internet might someday provide.

That was then; this is now. Today, according to a recent study by Credit Suisse First Boston, there are more than 100 million shoppers worldwide on the Internet and, by some estimates, as many as 500,000 merchants. A critical mass of buyers and sellers is now online. Many believe the time has come to reexamine how existing payment instruments can be improved and to start development on new, alternative payment systems that are optimized for the Internet.

Today, companies are developing payment systems with an Internet focus, as opposed to a banking-industry focus:

- **Person-to-Person.** With the introduction of an online system that handles person-to-person payments, PayPal is largely responsible for creating the payment industry's first new category. With more than eight million consumers behind it, PayPal has created enough market demand to be copied by Citibank (c2it), Wells Fargo (BillPoint), and others. To differentiate itself, and to leverage its huge consumer base, PayPal has recently begun to support direct payments to Web-based merchants.
- **Prepaid Card.** Prepaid card providers such as InternetCash in the U.S., SplashPlastic in the U.K., and TECHNOCASH in Australia are trying to establish beachheads through the retail distribution of prepaid cards that can be used to make anonymous online purchases. Prepaid card providers generally target teenagers and other non-credit-card-carrying consumers.
- **Electronic Cash.** eCash Technologies purchased the assets and patent portfolio of DigiCash and is now in the process of relaunching digital cash as an alternative online payment mechanism.
- **Micropayments.** Micropayment vendors, such as Qpass and iPIN, have been building networks of buyers who want access to premium content from the Wall Street Journal and other digital content providers. They have recently started to extend their platforms to support wireless payments through mobile portals.
- **Alternative Currencies.** Alternative currency providers such as Beenz gained strong customer uptake, only to be hurt by the recent economic downturn. Gold-backed online currencies such as e-gold and GoldMoney have been finding followers and continue to proliferate.

Although each of these new payment providers stresses a unique, category-specific value proposition for consumers, their merchant value propositions are remarkably consistent.

Undifferentiated Merchant Value Propositions

Alternative payment providers have failed to differentiate their merchant value propositions. What positions they do have are predicated on their difference from the credit-card business model. For online merchants, each alternative payment provider offers some variation on the following value proposition:

- **Access to New Customers.** “Our alternative payment system enables merchants to accept online payments from consumers without credit cards. Merchants gain access to kids, teens, individuals who don’t have credit cards, and individuals who have credit cards but have security or privacy concerns.”
- **Reduction in Online Fraud Rate.** “Our alternative payment system reduces a merchant's online fraud rate by directly authenticating each buyer, securing all transactions, and providing non-reputable transaction integrity. Using our alternative model, merchants no longer have to worry about accepting fraudulent credit cards.”
- **Elimination of Credit Card Chargebacks.** “Our unique approach eliminates all merchant chargeback risks, lowering a merchant’s overall cost to accept online payments and providing better cash-flow control.”
- **Immediate Access to Funds.** “Our alternative payment system processes all transactions in real time, 24 hours a day, seven days a week. With immediate settlement between accounts, merchants no longer have to wait for online payments to clear.”
- **Support for Micropayments.** “By eliminating expensive credit card transaction fees, our alternative payment system makes it viable and cost-effective for merchants to sell goods and services costing less than \$10.”

Payment providers working with alternative online currencies will also stress how their approach supports the inherently global Internet marketplace by eliminating currency-conversion costs when conducting transactions across national boundaries.

No alternative payment provider offers this exact merchant value proposition. Instead, each stresses different combinations of benefits that are specific to its payment system. However, most providers do hew closely to the above fundamentals, stressing the merchant value proposition of a non-credit-card-based payment system. Although this value proposition is initially compelling to many merchants, other, more systemic, problems tend to block actual adoption.

The Problem with Alternative Payment Systems

Each new alternative payment system faces a significant problem when it comes to merchant adoption—and without merchant adoption there is little incentive for consumer adoption. Unless the payment provider has an established financial relationship with a critical mass of consumers—such as PayPal, Amazon.com, AOL or MSN—they will have substantial problems recruiting online merchants that will actually accept new forms of payment.

Assuming that merchants do want to accept another online payment mechanism, providers must first overcome a number of challenges:

- **Proprietary Merchant Servers.** Each alternative payment provider uses its own proprietary merchant server or merchant integration technique. Merchant adoption requires that someone on the merchant's staff, or a service provider, install, test, and verify another merchant server.
- **Systems Integration Resources.** Once the merchant server is installed, each alternative payment system has its own requirements for integration into the merchant's shopping cart application or Web site workflow. With systems integration resources always in short supply, supporting yet another payment mechanism on the site is seldom a top priority.
- **Lack of Control.** Many merchants, particularly those interested in accepting alternative payment instruments, use either hosted servers with predefined payment gateways or external payment processors such as CyberSource and Paymentech. In such an environment, decisions about software installation and support are not under a merchant's control.

Even with the *will* to accept an alternative payment instrument, merchants must still find the *way* to technically handle the transaction before they can begin to accept new types of payments.

A Possible Solution: Common Merchant Payment Toolkit

Alternative payment providers generally differentiate their offering based on a new consumer value proposition, not a new merchant value proposition. Rather than competing with one another for each new online merchant, alternative payment providers might instead choose to work together to eliminate merchant adoption barriers for *all* alternative payment instruments.

One area of cooperation might be to define a common merchant payment toolkit that could support any type of new payment system. Online merchants would more quickly adopt new payment alternatives if the up-front work could be amortized over many different payment instruments. Such an approach would increase adoption of new, alternative forms of payment by building on existing merchants that already use the toolkit. New payment providers could also leverage the expertise of systems integrators familiar with the common merchant payment toolkit.

For merchants, a common merchant payment toolkit would reduce the cost of accepting new payment instruments. It would make merchant acceptance of new payment instruments a business decision based on terms and conditions, rather than a technical decision based on implementation costs, resource availability, and competing priorities.

Such a common toolkit should aim to make incrementally supporting a new payment instrument as simple as editing HTML.

Common Merchant Payment Toolkit Requirements

Requirements for merchant servers have historically focused on high-end functionality, optimized performance, and payment instrument-specific capabilities. While these requirements are real, they reflect the needs of the top-tier merchants more than those of the entire market. If one examines multiple merchant server specifications, a common set of requirements emerges.

Common Merchant Payment Toolkit Requirements	
Transaction Flow	
<i>Role</i>	<i>Action</i>
Merchant	Presents payment options to the consumer
Consumer	Selects payment option Directs control to the payment provider's Web site
Payment Provider	Authenticates consumer Presents payment details to consumer
Consumer	Verifies payment details Commits/rejects transaction
Payment Provider	Processes approved transaction Handles merchant-specific payment confirmation Handles success/failure, then redirects to the merchant
Merchant	Resumes control
Transaction Confirmation (None)	
Purpose	No transaction confirmation; mode used for donations
Notable Attributes	Does not include payment confirmation step Does include success/failure redirect
Merchant Implementation	Can be completely done through HTML and JavaScript Requires no server-side processing
Transaction Confirmation (Offline)	
Purpose	Used for low-volume Web sites and offline delivery of goods
Notable Attributes	Payment details pushed through e-mail back to merchant Merchant confirms payment completion before shipping goods; hard goods routed through surface mail, soft goods routed through e-mail or available for temporary download
Merchant Implementation	Can be completely done through HTML and JavaScript Generally requires no server-side processing Can be integrated with a merchant shopping cart
Transaction Confirmation (Online)	
Purpose	Used for high-volume Web sites and online automation
Notable Attributes	Payment details redirected back to merchant through transaction flow Payment provider signs payment details to protect against tampering
Merchant Implementation	Implemented through HTML and JavaScript Requires online merchant to handle server-side processing Almost always integrated with merchant shopping cart

Transaction Data Payload	
<i>Item</i>	<i>Purpose</i>
Merchant ID	Used to identify the merchant to the payment provider
Merchant Name	Presented to the consumer as part of the payment details verification step
Merchant Transaction ID	Unique ID generated or assigned by the merchant to track the purchase
Amount	Purchase or refund amount (e.g., 19.95)
Currency	Purchase or refund currency; could be an ISO currency (e.g., USD) or a payment-specific payment term (.e.g., GoldGrams, Beenz)
Description	Optional description presented to the consumer as part of the payment details verification step
Merchant Fields	Optional Merchant-specific fields that are passively carried along in the transaction and sent back to the merchant as part of payment confirmation

While not inclusive of every online merchant and not reflective of the full capabilities of all alternative payment systems, these requirements provide an overview of what is now available to merchants. The only catch, of course, is that each implementation is idiosyncratic—though each offers nearly identical functionality and transaction flow.

It is also interesting to note what is *not* included in these requirements. In this model, merchants are not required to:

- Authenticate consumers (although that is always a merchant option)
- Store and protect financial information (although they may choose to store and protect consumer preferences, contact information, and ship-to information)
- Have a SSL certificate (although some may)
- Install software (although some may)
- Test for the presence of installed wallets, plug-ins, ActiveX controls, or any other type of payment-specific client software

Merchants that accept donations only, or those that handle low-volume purchases with offline delivery, have no software to install. For these merchants, the common merchant payment toolkit can more accurately be thought of as the common merchant technique. All merchants, however, would benefit from sample scripts and templates.

Industry Stakeholders

For this approach to succeed, industry stakeholders should come forward to offer either endorsement or active support of the common merchant payment toolkit. The stakeholders include:

- **Merchants.** The most obvious stakeholders, merchants, have a vested interest in simplifying the time, effort, and cost involved in accepting new forms of online payment—particularly if the new

payment instruments have a lower fee structure, offer better terms and conditions, or mitigate merchants' risk of not being paid.

- **Alternative Payment Providers.** Existing payment system providers working with prepaid cards, person-to-person systems, and alternative currencies already offer a transaction model close to that proposed for the common merchant payment toolkit. They will profit if, by adopting the toolkit, they can increase the number of merchants accepting their payment mechanism. Emerging payment providers that have not yet invested in merchant toolkit functionality would have a huge stake in the success of the common merchant payment toolkit.
- **Payment Service Providers.** Payment service providers such as Bibit, ClearCommerce, CyberSource, Paymentech, and VeriSign have a stake in the successful adoption of alternative payment instruments. Today each new payment system must be painstakingly integrated into a service provider's payment platform. By incorporating common merchant payment toolkit functionality into their platforms once, service providers could offer new forms of payment processing to their clients, allowing them to differentiate their offerings in the market or undercut fees charged by competing providers. Payment service providers could also increase their profit margins by offering services that go beyond the functionality provided by the common merchant payment toolkit.
- **Payment Software Providers.** Software providers such as Trintech and GlobeID develop and sell value-added payment gateways to merchants, telcos, and ISPs. By integrating common merchant payment toolkit functionality into their premium offerings, they can help their customers further justify version upgrades and purchase of additional processing modules.
- **Consumer Advocacy Groups.** Consumer privacy groups should support any initiative that takes financial and other sensitive personal information out of the hands of casual merchants, where it is prone to abuse and misuse. These groups may even want to advocate new payment instruments that offer consumers anonymity, as many of the prepaid-card and digital-cash providers do. Merchants might also pass on savings in payment processing to consumers.

Although each class of stakeholders has different motivations, all would benefit from widespread adoption of a common merchant payment toolkit.

Recommendations

The Internet has reached sufficient size and influence that we can today consider adopting payment systems to the Internet, instead of the Internet to payment systems. Today new, alternative payment systems are being developed and deployed in market trials throughout the world. However, acceptance of alternative payment systems is dependent on merchant adoption—which unfortunately has received only after-the-fact consideration from participants, and too little attention from the industry.

This research report recommends that payment industry stakeholders work together to define and deploy a common merchant payment toolkit, in order to better support the adoption of alternative payment instruments.

The toolkit will not eliminate the need for new payment system providers to reach out to online merchants with competitive terms and conditions. Instead, it should streamline system selection and implementation and make a merchant's choice to accept a new payment instrument a business decision based on terms

and conditions—not a technical decision based on implementation costs, resource availability, and competing priorities.

Although this approach benefits all payment industry stakeholders, the critical first step in this journey is to engage the merchants. The merchant community should define its own requirements and not rely on other stakeholders that have presumed that merchant requirements mirror their own business interests.

If made a reality, widespread deployment of a common merchant payment toolkit would increase the market adoption of new, alternative payment instruments. With one of the major barriers to market entry removed, both consumers and merchants might be pleasantly surprised by the diversity of alternative and third-party payment providers. For example, might this be the push that jump-starts the acceptance of digital cash as an online payment instrument? Might Amazon.com be tempted to offer its famous one-click purchase capability to other merchants for a small percentage of the transaction fee? Might other brick-and-mortar merchants do the same with their gift cards?

At the end of the day, the potential benefits from a common merchant payment toolkit far outweigh the cost and coordination efforts required to make it a reality. Merchants would be able to quickly take advantage of new payment instruments, often with better terms and conditions. Consumers would benefit if a wider selection of payment instruments were accepted by mainstream merchants. Alternative payment providers would be encouraged to pursue their ideas and offer new, innovative payment instruments, secure in the knowledge that merchants were technically ready to accept new forms of Internet payment.

About the Author

Russ Jones is a general partner with The NuVantage Group, an innovation-to-market consulting group. Russ is one of the pioneers in commercial use of the Internet, having led the creation of the first commercial Web site in 1993 and developed many online marketing techniques now used throughout the industry. He describes the lessons learned from this experience in *The Internet Strategy Handbook*. He currently works with companies in the information economy on strategy development and business models. Russ can be reached at rjones@nuvantage.com.

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